



in which

A, D, E and G are identical or different and represent CH groups or nitrogen atoms,

- L¹ and L² are identical or different and independently of one another each represents one or more radicals selected from the group consisting of hydrogen, halogen, hydroxyl, carboxyl, cyano, nitro, trifluoromethyl, trifluormethoxy, (C1-C6)-alkyl, (C₁-C₆)-alkoxy and (C₁-C₆)-alkoxy-carbonyl,
- R^{1} represents the CH₂-OH group, or represents a radical of the formula CO-NR⁴R⁵

in which

R⁴ and R⁵ are identical or different and each represents hydrogen or (C₁-C₆)-alkyl,

- R^2 represents (C₃-C₈)-cycloalkyl, represents (C₁-C₈)-alkyl which is optionally interrupted by an oxygen or sulphur atom or by a radical NR⁶,
 - represents a 4- to 8-membered saturated heterocycle which is attached to the imidazole ring via a nitrogen atom and which optionally contains a further oxygen or sulphur atom, or



represents a 4- to 8-membered saturated hetrocycle which contains a radical of the formula NR⁷ and optionally additionally one nitrogen, oxygen or sulphur atom,

where (C₃-C₈)-cycloalkyl, (C₁-C₈)-alkyl which is optionally interrupted by one oxygen or sulphur atom, the 4- to 8-membered saturated heterocycle which is attached to the imidazole ring via a nitrogen atom and which optionally contains one further oxygen or sulphur atom and optionally (C₁-C₈)-alkyl which is interrupted by a radical of the formula NR⁶ and optionally the 4- to 8-membered saturated heterocycle which contains a radical of the formula NR⁷ and optionally additionally one nitrogen or sulphur atom are substituted by one to three hydroxyl groups and/or by a radical of the formula -NR⁸R⁹

in which

R⁶ and R⁷ are identical or different and each represents hydrogen, (C₁-C₆)-alkyl, hydroxy- (C_1-C_6) -alkyl or (C_3-C_7) -cycloalkyl,

R⁸ and R⁹ are identical or different and each represents hydrogen, (C₁-C₆)-alkyl or (C₃-C₇)-cycloalkyl,

or

R⁸ and R⁹ together with the nitrogen atom form a 4- to 8-membered saturated heterocycle which may optionally additionally contain one oxygen or sulphur atom or a radical of the formula NR¹⁰

in which

R¹⁰ represents hydrogen, (C₁-C₆)-alkyl or (C₃-C₇)-cycloalkyl

and

R³ represents a phenyl, naphthyl, pyrimidinyl, pyridyl, furyl or thienyl ring, where the rings are optionally mono- or polysubstituted by radicals selected from the group consisting of halogen, hydroxyl, carboxyl, cyano, nitro, trifluoromethyl, trifluoromethoxy, (C₁-C₆)-alkyl, (C₁-C₆)-alkoxy and (C₁-C₆)-alkoxycarbonyl,

and their salts.

2. (Amended) Compounds according to Claim 1

where

A, D, E and G each represent the CH group,

or one of the radicals A, D, E and G represents a nitrogen atom and the others each represent the CH group,

- L¹ and L² are identical or different and independently of one another each represents one or more radicals selected from the group consisting of hydrogen, fluorine, chlorine, cyano, trifluoromethyl [or] and trifluoromethoxy,
- R^1 represents the -CH2-OH group, or represents a radical of the formula -CO-NR $^4R^5$

in which

 R^4 and R^5 are identical or different and each represents hydrogen or $(C_1\text{-}C_3)$ -alkyl,

R² represents (C₃-C₇)-cycloalkyl,

represents (C₁-C₆)-alkyl which is optionally interrupted by an oxygen or sulphur atom or by a radical NR⁶,

represents a 5- to 7-membered saturated heterocycle which is attached to the imidazole ring via a nitrogen atom and which optionally contains a further oxygen or sulphur atom, or

represents a 5- to 7-membered saturated heterocycle which contains a radical of the formula NR⁷ and optionally additionally one nitrogen, oxygen or sulphur atom,

where (C₃-C₇)-cycloalkyl, (C₁-C₆)-alkyl which is optionally interrupted by one oxygen or sulphur atom, the 5- to 7-memebered saturated heterocycle which is attached to the imidazole ring via a nitrogen atom and which optionally contains one further oxygen or sulphur atom and optionally (C₁-C₆)-alkyl which is interrupted by a radical of the formula NR⁶ and optionally the 5- to 7-membered saturated heterocycle which contains a radical of the formula NR⁷ and optionally additionally one nitrogen, oxygen or sulphur atom are substituted by one to three hydroxyl groups and/or by a radical of the formula –NR⁸R⁹

in which

 R^6 and R^7 are identical or different and each represents hydrogen, (C_1-C_4) -alkyl, hydroxy- (C_1-C_4) -alkyl or (C_3-C_6) -cycloalkyl,

 R^8 and R^9 are identical or different and each represents hydrogen, (C_1-C_4) -alkyl or (C_3-C_6) -cycloalkyl,

or

R⁸ and R⁹ together with the nitrogen atom form a 5- to 7-membered saturated heterocycle which may optionally additionally contain one oxygen or sulphur atom or a radical of the formula NR¹⁰

in which

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R¹⁰ represents hydrogen, (C₁-C₄)-alkyl or (C₃-C₆)-cycloalkyl

and

R³ represents a phenyl, pyridyl or thienyl ring, which is optionally mono- or polysubstituted by radicals selected from the group consisting of fluorine, chlorine, cyano, trifluoromethyl and trifluoromethoxy,

and their salts.

DOGECHE LICOL

5.

(Amended) Process for preparing compounds of the general formula (I) according to Claim 1, characterized in that

(A) compounds of the general formula (II)

AZ

in which

L² is as defined in Claim 1,

T represents (C₁-C₄)-alkyl,

and

V represents a suitable leaving group,

is initially coverted by reaction with compounds of the general formula (III)

$$R^{11} \xrightarrow{N} G^{\times} E L^{1} \qquad (III)$$

in which

A, D, E, G and L¹ are each as defined in Claim 1

and

R¹¹ has the meaning of R² given in Claim 1, where amino and hydroxyl functions are optionally blocked by suitable amino or hydroxyl protective groups,

in inert solvents, depending on the definition of R¹¹ optionally in the presence of a base, into the compounds of the general formula (IV)

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R^{11} & \stackrel{N}{\longrightarrow} & \stackrel{A}{\longrightarrow} & D \\
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in which

R¹¹, A, D, E,G, L¹, L² and T are each as defined above,

which are converted in a subsequent step using acids or bases into the corresponding carboxylic acids of the general formula (V)

$$\begin{array}{c|c}
R^{11} & \stackrel{N}{\longrightarrow} A \xrightarrow{\stackrel{\circ}{\longrightarrow} D} L^{1} \\
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in which

R¹¹, A, D, E, G, L¹ and L² are each as defined above,

which are subsequently reacted with compounds of the general formula (VI)

$$H_2N \stackrel{R^3}{\downarrow} (VI)$$

in which

R¹ and R³ are each as defined in Claim 1

in inert solvents,

and, if R¹¹ carries one of the abovementioned protective groups, these are optionally removed by customary methods either in the hydrolysis to the acids (IV)->(V) or after the reaction with the compounds of the general formula (VI),

or

(B) if R² of structure (I) shown in Claim 1 represents a saturated heterocycle which is attached directly via a nitrogen atom to the imidazole ring,

the abovementioned compounds of the general formula (II) are initially converted with compounds of the general formula (IIIa)

in which

A, D, E, G and L¹ are each as defined in Claim 1

and

Y represents halogen or mesyl,

in inert solvents into the corresponding compounds of the formula (VII)

$$\begin{array}{c|c}
Y & \xrightarrow{N} & \xrightarrow{A} & D \\
N & G & E \\
\downarrow & & & & \\
CO_2 - T & & \\
L^2 & & & & \\
\end{array}$$
(VII),

in which

Y, A, D, E, G, L¹, L² and T are each as defined above,

which are reacted in a subsequent step with compounds of the general formula (VIII)

in which

 R^{12} and R^{13} together with the nitrogen atom form a heterocycle according to the definition of R^2

to give compounds of the general formula (IX)

$$R^{12}R^{13}N$$
 N
 G
 E
 CO_2 -T
 CO_2 -T
 CO_2 -T
 CO_2 -T

in which

A, D, E, G, L¹, L², R¹², R¹³ and T are each as defined above,

which are, in the subsequent steps, converted as described under (A) by hydrolysis into the corresponding carboxylic acids of the general formula (X)

in which

A, D, E, G, L¹, L², R¹², and R¹³ are each defined above,

and these compounds are subsequently reacted with the compounds of the general formula (VI) according to known methods for preparing amides from carboxylic acids and amines and, if appropriate, converted into the corresponding salts by reaction with an acid.

6. (Amended) Compounds of the general formula (IV)

$$R^{11}$$
 N
 G
 E
 CO_2 -T
 CO_2 -T
 CO_2 -T
 CO_2 -T

in which

A, D, E, G, L^1 , and L^2 , are each as defined in Claim 1 and R^{11} and T are defined as in Claim 5

and their salts.

7. (Amended) Compounds of the general formula (V)

in which

A, D, E, G, L¹, and L², are each as defined in Claim 1 and R¹¹ is as defined in Claim 5

and their salts.

8. (Amended) Compounds of the general formula (VII)

in which

A, D, E, G, L^1 , and L^2 , are each as defined in Claim 1 and Y and T are as defined in Claim 5

and their salts.

9. (Amended) Compounds of the general formula (IX)

$$R^{12}R^{13}N$$
 N
 G
 E
 CO_2 -T
 CO_2 -T
 CO_2 -T

in which

A, D, E, G, L^1 , and L^2 , are each as defined in Claim 1 and R^{12} , R^{13} and T are as defined in Claim 5.



and their salts.

10. (Amended) Compounds of the general formula (X)

$$R^{12}R^{13}N \xrightarrow{N \qquad G^{\smile} \dot{E}} L^{1}$$

$$CO_{2}H$$

$$L^{2} \qquad (X)$$

in which

A, D, E, G, L^1 , and L^2 , are each as defined in Claim 1 and R^{12} and R^{13} are as defined in claim 5

and their salts.

11. (Amended) A pharmaceutical composition comprising a compound of the general formula

(I) according to Claim 1 in admixture with at least one pharmaceutically acceptable, essentially non-toxic carrier or excipient.

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- 15. The process of claim 5 wherein T represents methyl or tert-butyl.
- 16. The process of claim 5 wherein V represents halogen, mesylate or tosylate.
- 17. The process of claim 16 wherein V represents bromine.

